

ROSEN, J.

"The acidities of some mineral acids in acetic acid; the acidity function $(H_0)_1$. In English."

p. 1 (Journal on chemistry and biochemistry - Czechoslovak Academy of Science)
Vol. 22, No. 1, February 1957

SO: Monthly Index of East European Accession (EEAI) LJ, Vol. 7, No. 5, May 1953

1958. 2: 111-115.

"Oxidations with chromium (VI) oxide. VII. Mechanism of oxidation of secondary alcohols." (In English)

COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS, Praha, Czechoslovakia,
Vol. 23, no. 11, Nov. 1958

Monthly list of EAST AFRICAN ACCESSIONS (WEAF), IC, Vol. 8, No. 7, July 1959, Unclas.

ROCEK, J.

"Oxidation with chromium oxide. V. Oxidation of cyclohexane and n-heptane."
p. 459

Vol. 51, No. 3 March 1957 (Czechoslovak Academy of Science)

SO: Monthly Index of East European Accession (EEAI) 10, Vol. 7, No. 5 May 1958

Roczek, Jan

7
 V Oxidations with chromium(VI) oxide. VI. Mechanism of oxidation of tertiary alcohols and their esters. Jan Roczek (Czech. Acad. Sci., Prague). *Chem. listy* 51, 835-84 (1957); cf. *C.A.* 51, 10388c. — 1-Methylcyclohexanol (I), 1-phenylcyclohexanol, and 1-methylcyclohexylacetate are oxidized with CrO_3 in 85-100% AcOH in the presence of 0.02-2.0M H_2SO_4 or HClO_4 at a rate which is proportional to the concn. of the oxidized compd. and is independent on the concn. of CrO_3 . The velocity consists of the 1st order rise much faster than the concn. of the mineral acid and are in proportion to the acidity function (h_0); (cf. *C.A.* 50, 10489; 51, 17356a). These facts are explained by a mechanism based on a fast reversible protonization of the alc. or ester followed by the velocity-detg. cleavage of a mol. of H_2O or AcOH giving rise to a 1-methylcyclohexyl carbonium ion which is converted in fast reaction to an olefin. The olefin is then quickly oxidized by CrO_3 . The mechanism received confirmation by the finding that olefins are oxidized by orders faster than the corresponding tertiary alcs. or esters and that the velocities of dehydration or elimination of AcOH giving rise to the olefin are approx. the same as the oxidation velocity. The identity and the equimolar ratio of the products arising by the oxidation of the studied compds. and the corresponding olefins was proved indirectly by the same course of CrO_3 consumption in the dependence on time. Oxidizing 5 g. methylcyclohexane with 10 g. CrO_3 in 100 ml. 100% AcOH gave 0.47 g. I. L. J. Urbanek

1. 1944, 1945.

2. 1946 (1946)

3. 1947 - 1948 - 1949 District

7. 1949 - 1950 milk yield in the District of the Pacific River, Dots. 1949.
1949, 3, 1949.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

ROCHEV, P. A.

Nizhine-Pechora District - Dairying

Increasing the milk yield of cows in the district of the Pechora River. Sots. zhiv. 15,
No. 3, 1953.

SO: Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

ROCHKINA, O.P.

Cygerol. Med.prom.SSSR 12 no.5:49 My '53.
(CYCLOHEXANEACETIC ACID)

(MIRA 11:5)

ROCHKO, V.; SOSKIN, A., red.

[Way to plenty] Kurs na izobilie. Moskva, Gospolitizdat, 1960.
1 v. (MIRA 13:5)
(Russia--Economic policy)

BELYAYEVA, Z.; BUDARIN, V.; VASHENTSEVA, Ye.; KOPTEV, M.; KOROLEV, S.;
MESHCHERYAKOV, V.; SEMIN, S.; KONAKOV, D., otv.red.; ROCHKO, V.,
red.; SOSKIN, A., red.

[Political economy; a manual of visual aids] Politicheskaya
ekonomiya; nagliadnoe posobie. Otvetstvennyi red. D. Konakov.
Moskva, Gos.izd-vo polit.lit-ry, 1959. 159 p. (MIRA 13:3)
(Economic history) (Audio-visual aids)

VEYSBISH, S.; ROCHKO, V.; VINOGRADOV, S., red.; KOSTIN, M., red.

[Long step toward the great goal, 1959-1965] Krupnyi shag k velikoi
tseli, 1959-1965. Gospolitizdat, 1958. 1 v. (unpaged)
(Russia--Economic policy) (MERA 12:2)

POLTORYGIN, V.K.; RUMYANTSEV, A.F., otv.red.; ROCHKO, V.N., red.

[Economics of socialist industrial enterprises; visual aids]
Ekonomika sotsialisticheskikh promyshlennykh predpriatii;
nagliadnye posobiia. Moskva, Gospolitizdat, 1960. 20 plates.
(MIRA 13:12)

(Industrial statistics--Audio-visual aids)

1. ROCHEGOV, A. G.
2. USSR (600)
4. Architecture - Volga-Don Canal
7. Experience with the use of sectional architectural parts on the structures of the Volga-Don Canal. *Biul.stroi.tekh.*, 9, no. 24, 1952.

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

General Chemistry 02

CA

Beckmann rearrangement of cyclohexanone oxime.
Kinetics of final stages of the reaction. I. Oto Wichterle
and Jan. Rodek (Tech. Univ., Prague, Czech.). *Chem.
Listy* 45, 257-9 (1951).—Because the reaction is exothermic
and rapid, the kinetic studies of the Beckmann rearrange-
ment offer many difficulties. However, the final stages of
the reaction can be easily followed, since the oxime is dissol-
ved with the product of rearrangement which lowers the temp.
peak from the heat developed in the reaction. The measure-
ments were carried out in 30-80% solns. of cyclohexanone
oxime and ϵ -caprolactam in 5% oleum. The reaction is of
the 1st-order. The velocity const. at 10-80° were detd.
II. *Ibid.* 370-80.—The effect of the concn. of SO_3 in
oleum on the reaction rate of the Beckmann rearrangement
of cyclohexanone oxime was followed at const. temp. with a
const. amt. of oleum. Changes of the SO_3 content in
approx. 100% H_2SO_4 influenced the reaction rate most
effectively. The min. effect was with a change of concn. of
 SO_3 in 5-10% oleum. The reaction was 1st-order, and its
rate const. at 30° was $1.15-9.2 \times 10^{-4}$, depending on the
 SO_3 content in the oleum. M. Hudlický

Roček, J.

Chemical Abst.
Vol. 48 No. 6
Mar. 25, 1954
Organic Chemistry

Beckmann rearrangement of cyclohexanone oxime.
Kinetics of final reaction phases. J. Roček and Z. Bergl
(Vysoká škola chem., Prague, Czechoslovakia. Listy 47,
473-3(1953); cf. C.A. 46, 10809f. — The reaction rate of the
Beckmann rearrangement of cyclohexanone oxime in 10%
oleum was found to be the same as in 5% oleum. In the
range of 20-70° and 30-70% oxime, the rearrangement rate
is independent of the SO₃ concn. in the interval of 5-10%
SO₃ in oleum. M. Hudlický

1 OF 2

Addition of dienes to thionylamines. Preparation of heterocyclic compounds of 1,2-thiazine series. Oto Wichterle and Jan Roček (Vysoká škola chem., Prague, Czech.). Chem. Listy 47, 1768-80 (1953); Collection Czechoslov. Chem. Commun. 19, 282-98 (1954) (in Russian); cf. C.A. 42, 556i; following abstr.—A new type of the Diels-Alder reaction was discovered in the addn. of dienes, $\text{CH}_2=\text{CHCH}=\text{CH}_2$ (I) and $\text{CH}_2=\text{C}(\text{Me})\text{CH}=\text{CH}_2$ (II), to aromatic thionylamines

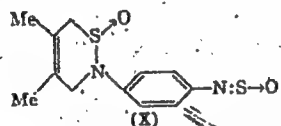
(RN:S→O) which led to substituted 2,7-dihydro-6H-1,2-thiazine 1-oxides (III), a new type of heterocycle. The reactions of III were studied for 4,5-disubstituted 2-phenyl-3,3-dihydro-6H-1,2-thiazine 1-oxide (IIa) which gave an acidic dihydro-6H-1,2-thiazine 1-oxide (IV); on alk. hydrolysis PhNHCH₂CHMeCMe:CH₂ (IV); on alk. hydrolysis PhNHCH₂CH₂dimethylpyrrole (V) (see following abstract) 1-phenyl-3,4-dimethylpyrrole (V) (see following abstract), by LiAlH₄ reduction 2-phenyl-4,5-dimethyl-2,3-dihydro-1,2-thiazine (VI), and by oxidation IIa 1,1-dioxide (VII), dro-1,2-thiazine (VI), and by oxidation IIa 1,1-dioxide (VII), the 4,5-epoxy deriv. (VIII) of IIa, and the 4,5-epoxy deriv. (IX) of VII. The addn. does not occur with aliphatic thionylamines. The thionylamines were prep'd. by heating amines with SOCl₂ on the steam bath, until no more HCl escaped, and distg. or crystg. the crude product. Conditions and properties of thionylamines are listed (g. of amine, ml. SOCl₂, ml. C₆H₆, reaction time in hrs., b.p., m.p., % yield):

PhN:S→O,	1020 (PhNH ₂ , HCl),	600,	2300,	15,	b.p.	84-8°	
—, 86;	p-C ₆ H ₄ N:S→O,	17.5,	11,	150,	2,	b.p.	123°, 55-8°
90.5;	m-ClC ₆ H ₄ N:S→O,	50,	30,	100,	4.5,	b.p.	114.5°
21°, 98.3;	o-MeC ₆ H ₄ N:S→O,	39.3,	30,	100,	0.7,	b.p.	99.5°
83-4°, 89;	p-MeOC ₆ H ₄ N:S→O,	12,	10,	100,	2.7,	b.p.	129°
24°, 93.6;	p-C ₆ H ₄ (N:S→O) ₂ ,	12.5,	20,	100,	2.7,	—	—

EtO was 113.5-14.5°, 65°. BuNH₂ (73 g.) in 100 ml. EtO was treated, at -10°, with 43 g. SOCl₂ in 100 ml. EtO, heated on the steam bath 1 hr., the BuNH₂.HCl filtered off, and the residue distd. yielding 12.3 g. (28.4%) BuN:S→O, b.p. 84-6°, d₂₀ 1.0165. The addn. was carried out by boiling a slight excess of the diene with the thionylamine several hrs. on the steam bath. Refluxing 70 g. PhN:S→O and 45 g. II for 8 hrs., and distg. the mixt. at 1-2 mm. gave 12 g. (17%) unreacted PhN:S→O and a residue which yielded 80 g. (72%)

OTO WICHTERLE

IIIa, m. 79.5-80.7° (from cyclohexane). M.ps. and % yields (based on the reacted thionylamines) of III (R = Me, R' given) were as follows: *m*-O₂NC₆H₄, 172-3°, 80; *p*-O₂N-C₆H₄, 173-5° (decompn.), 40; *o*-MeC₆H₄, 82.5-3.5°, 65; *p*-MeC₆H₄, 100.5-1.5°, 69; *p*-MeOC₆H₄, 110.5-11°, 88; *p*-MeOCC₆H₄, 108-7°, 87; *o*-C₆H₄, 128-30°, 70; *β*-C₆H₄, 153.9-1.3°, 63; *m*-ClC₆H₄, 136-7°, 79. The compds. were crystd. from C₆H₆-petr. ether, or from EtOH. I (29 ml.) and 29 ml. PhN:S=O heated in a sealed tube 8-16 hrs. at 110° gave after crystn. from C₆H₆, 2-phenyl-2,3-dihydro-6H-1,3-thiazine 1-oxide (IXa), m. 97-7.5° (from C₆H₆-petr. ether), and its mol. compd. with 1 mole PhNH₂, m. 74.2-5.2°. The same addn. compd., m. 74.2-8.2°, was prepd. in 95% yield by mixing 0.74 g. IXa and 0.36 g. PhNH₂ in 2.5 ml. C₆H₆. *p*-C₆H₄(N:S=O)₂ (6 g.) and 8 ml. II gave, after heating 11 hrs. on the steam bath, 4.3 g. unstable X, m. 157-62°, which hydrolyzed by 1 day standing to the *p*-H₂N analog of IIIa, m. 190-7° (decompn.). Heating 30 g. IIIa with 15 ml. HCl and 45 ml. H₂O 30 min. on the steam-



bath, alkalinizing the mixt. with 7 g. NaOH, extg. with

Et₂O and evapg. the Et₂O ext. gave 23 g. (95.7%) IV, b_p 101°, d₄ 0.8394, d₁₅ 0.8442, n_D²⁰ 1.6390 (HCl salt, m. 120-22°; the nitrosamine, picrate, and Ba derivs. are oils), hydrogenation over PtO₂ showed 0.94 double bond. When the hydrolysis was carried out with 10% H₃PO₄, a small amt. of PhNHCH₂CH₂MeCMe(OH)Me, b_p 135°, n_D²⁰ 1.5810, was obtained. IIIa (2.2 g.) boiled with 0.2 g. LiAlH₄ in 60 ml. Et₂O the mixt. decompd. with 3 ml. H₂O, and the Et₂O layer evapg. yielded 1.94 g. of an oil which gave VI, m. 93-4° (from MeOH). Treating 1.1 g. IIIa with 825 mg. BrO₃H in 25 ml. CHCl₃ 15 hrs. at -15° gave a good yield of VIII, m. 147-8° (from EtOH-H₂O). Similarly from 16.5 g. IIIa and 0.080 mole BrO₃H, were obtained 5.7 g. VIII and, by chromatography, 1.4 g. VII. VII, m. 151.5-2.5°, was also prepd. (1.4 g., 40%) by treatment of 4.4 g. IIIa in 80 ml. EtOH with 16 ml. 5% NaOH and 16 ml. 30% H₂O₂ at room temp. IIIa (1.1 g., 0.005 mole) with 30 ml. CHCl₃ contg. 0.012 mole BrO₃H yielded, after 20 days at room temp., 1 g. (79%) IX, m. 81.7-2.7° (from C₆H₆-petr. ether). Heating 2.37 g. VIII with 10 ml. 5% HCl yielded a small amt. of a compd. m. 121°, and 1.24 g. (65%) of an oil distg. at 0.2-0.3 mm. at 111-28° (bath temp.), d₄ 1.0260, n_D²⁰ 1.5540, probably PhNHCH₂CH₂MeCMe(OH)CMe:CH₂. Heating 8.8 g. IXa with 5.5 ml. HCl and 15.5 ml. H₂O 40 min. on the steam bath, and 5 min. to the b.p., alkalinizing the mixt., extg. with Et₂O, and evapg. the ext. gave 5.77 g. (87%) PhNHCH₂CH₂CH:CH₂ (XI), b_p 133°, d₄ 0.9578, n_D²⁰ 1.5838; acidic oxalate, m. 149.5-51° (decompn.) (from EtOH); HCl salt, m. 137.5-40.5° (decompn.). Ozonization of the Ac deriv. of XI b_p 158°, gave CH₃CO. Treating 1.93 g. IXa with 0.11 mole BrO₃H in a mixt. of C₆H₆, CHCl₃, and CCl₄, gave 1.35 g. (65%) 2-phenyl-2,3-dihydro-6H-1,2-thiazine 1,1-dioxide, m. 85-6° (from MeOH and EtOH).

M. Hudlický

Roček, Jan

A new synthesis of *N*-arylpyrroles. Jan Roček (Vysoká škola chem., Prague, Czech.). *Chem. Zvesti* 47, 1781-8 (1953); *Collection Czechoslov. Chem. Commun.* 19, 275-80 (1954) (tr. German); cf. preceding abstr.—Alk. hydrolysis of 2-phenyl-3,6-dihydro-1,2-thiazine 1-oxide (I) and of 2-aryl-4,5-dimethyl-3,6-dihydro-1,2-thiazines 1-oxide (II) gave high yields of *N*-phenylpyrrole (III) and 2-aryl-3,4-dimethylpyrroles (IV). The arylpyrroles were prepd. by refluxing I or II 1-2 hrs. with alc. KOH and isolating the product by steam distn. or pptn. with H₂O. Refluxing 1.5 hrs. 2.79 g. 4,5-dimethyl-2-(4-carbomethoxyphenyl)-3,6-dihydro-1,2-thiazine 1-oxide with 2.5 g. KOH in 80 ml. EtOH, pouring the mixt. into 150 ml. H₂O, filtering the soln. and acidifying with 28 ml. N H₂SO₄ to pH 3-4 gave 2.10 g. (100%) 1-(4-carboxyphenyl)-3,4-dimethylpyrrole, m. 274-6° (decompn.). Similarly were prepd. III (m. 60-1°, yield 40%) and the following IV (aryl, yield, m.p.): Ph, 92%, 71-2°; *o*-Me-C₆H₄, 90.3, 52-3°; *p*-Me-C₆H₄, 75, 105-6°; *p*-MeOC₆H₄, 97.5, 101.5-4.5°; *m*-ClC₆H₄, 64, 33-4.5°; *o*-C₆H₅, 30, 45-6°; *p*-C₆H₅, 93, 109-12°; *p*-NH₂-C₆H₄, 90.4, 142-3°. The pyrroles were crystd. from dil. MeOH or EtOH. 4,5-Dimethyl-2-(*m*-nitrophenyl)-3,6-dihydro-1,2-thiazine 1-oxide (3 g.) was refluxed 2 hrs. with 5 g. KOH in 90 ml. EtOH, the mixt. satd. with CO₂, the EtOH distd. off, the residue treated with H₂O and Et₂O and the ether ext. evapd. to yield 0.3 g. (14%) 3,3'-bis(3,4-dimethyl-1-pyrrolyl)azobenzene, m. 124-6° (from EtOH). M. Hudlický

ROCEK, J.

A new method for the preparation of n-arylpyrrole [in German with summary in Russian]. Sbor.Cekh.khim.rab. 19 no.2:275-281 Ap '54.
(MLRA 7:6)

1. Institut plastmass Prazhskogo Khimicheskogo instituta.
(Pyrroles)

WICHTERLE, O.; ROCEK, J.

Addition of dienes to thyonylamines; preparation of heterocyclic compounds of 1,2-thiazine series [with summary in German]. Sbor. Chekh. khim. rab. 19 no.2:282-297 Ap '54. (MLRA 7:6)

1. Institut plastmass Prazhskogo Khimicheskogo instituta.
(Thiazine)

~~ROČEK, JAN~~

211 Hammitt acidity functions for the system acetic acid-
phosphoric acid-water. Otto Knesel, Jan Roček, and Milo-
slav Štívek. Collection Czechoslov. Chem. Commun. 20,
831-5 (1955) (in German).—See C.A. 49, 9362i. B. I. G.

(2)

MA

Jan

Rocek

B-9

Category. Czechoslovakia

Abs Jour: Zh--Kh, No 3, 1957, 7546

Author : Rocek, J. and Shorm, F.

Inst : Not given

Title : Oxidation with Chromic Oxide. I. The Oxidation with Chromic Oxide as an Acid-Catalyzed Reaction. (Rocek, J. and Shorm, F.).
II. On the Solubility of Chromic Oxide in Acetic Acid (Rocek, J.)

Orig Pub: Sb. chekhosl. khim. rabot, 1955, Vol 20, No 5, 1009-1017; 1249-1250 (in German with a summary in Russian)

Abstract: No abstract. See RZhKhim, 1956, 46401.

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ROCEK, JAN

CZECH

Hammett acidity functions for the system acetic acid-phosphoric acid-water. Otto Knessl, Jan Roček, and Miroslav Marek (Ústav org. chemie CSAV, Prague). *Chem. Listy* 49, 302-6 (1955).—The Hammett acidity function for the system at 20° was detd. in the concn. ranges 0-15% ²

H₃PO₄ and 0-6% H₂O. The indicator was *p*-nitroaniline. This system forms a buffer soln. suitable for the study of acid catalysis in the AcOH soln. E. Erdős

gpc

JAN, Roček

ROČEK, JAN

Oxidations with chromium trioxide. I. Oxidation with chromium trioxide as an acid-catalyzed reaction. Jan Roček and František Šorm (Čech. akad. věd. Prague. Chem. Listy 49, 306-12 (1955)).—The oxidation of methylcyclohexane (I) with CrO_3 in anhyd. AcOH was studied kinetically under varying concns. of I and in the presence of H_2SO_4 , $\text{CCl}_3\text{CO}_2\text{H}$, H_2O , $\text{Cr}(\text{OAc})_3$, AcONa , and pyridine. The oxidation is strongly catalyzed by strong acids (H_2SO_4 , PhSO_3H) and inhibited by bases such as H_2O , $\text{Cr}(\text{OAc})_3$, and especially by pyridine and AcONa . The inhibition by $\text{Cr}(\text{OAc})_3$ is due to its basicity only, no other specific effect being responsible for the drop of the rate of oxidation. II. Solubility of chromium trioxide in acetic acid. J. Roček. *Ibid.* 369-70.—The soly. of CrO_3 in anhyd. AcOH estd. heretofore as 1% was found to be approx. 0.1% at room temp. The exact detn. of soly. is difficult, since traces of water and of $\text{Cr}(\text{OAc})_3$ increase the soly. considerably. With 99.95% AcOH , 0.1% H_2O doubles the soly. of CrO_3 , 1% H_2O increases the soly. more than 10 times. The $\text{Cr}(\text{OAc})_3$ increase the soly. of CrO_3 ten times as compared with the concn. of H_2O of the same molarity.

M. Hudlický.

Kocak, Jan

The acidity of certain mineral acids in acetic acid. The acidity function (H_0). Jan Roček (Chem. ústav CSAV, Prague). Chem. Listy 56, 728-727 (1956). In media with low polarity Hammett's acidity function H_a is not independent of the indicator used. Therefore, for such media a relative acidity function (H_0) is introduced, the values of which are referred to the indicator I that has been used as a basis for the acidity detm. The properties of these functions and their relations to the general function H_0 are discussed. The acidities of H_2SO_4 , $HClO_4$, and H_3PO_4 in AcOH with variable H_2O content were detd. with 4-chloro-2-nitroaniline, o-nitroaniline, and p-nitroaniline as indicators. The previously published H_0 values of H_3PO_4 in AcOH are corrected.

J. Růžek

PM

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Roczek, J.

Roczek, J. Securing the flow of water against excessive pressure. p. 15.

Vol. 7, no. 1, Jan. 1957

STROJIRENSTVI

TECHNOLOGY

Czechoslovakia

So: East European Accessions, Vol. 6, May 1957
No. 5

ROCEK, J.

TECHNOLOGY

PERIODICALS: JADERNA ENERGIE Vol. 4, no. 12, Dec. 1958

ROCEK, J.; BARTOSEK, V. Physical data on the design of heavy and light-
water moderated homogenous reactors, p. 365

Monthly List of East European Accessions (EEAI) LC Vol. 8, no. 5
May 1959, Unclass.

7
 Oxidations with chromic oxide. VII. Mechanism of the oxidation of secondary alcohols. Jan Roček and Josef Krupička (Čal. akad. věd, Prague). *Chem. listy* 52, 1735-36 (1958); *C.A.* 52, 4510b. — Oxidation of iso-PrOH (I) by CrO_3 (II) in a strongly acidic medium contg. 5-70% H_2SO_4 was studied by polarographic method. The course of log k plotted against H_0 is linear up to $H_0 = -3.5$ and the slope of the line is 0.91. These results favor a new proposed mechanism for the oxidation of secondary alcs. by II by way of a cyclic transition state (III) featured by a hydride transfer from the secondary C to II. This mechanism offers a much more satisfactory explanation of a series of phenomena observed in the oxidation of alcs. by CrO_3 than the generally accepted mechanism of Cohen and Westheimer (*C.A.* 47, 8633h) who assumes the formation of an ester of I with II as an intermediate. The catalysis of the reaction by $\text{C}_6\text{H}_5\text{N}$ described by C. and W. was not noticed. On the basis of the measurements of the oxidation rate in the dependence on the concn. of H_2SO_4 , the pK_a of the conjugate acid of I was estd. to -4.1 ± 0.3 . The mechanism proposed for the secondary alcs. could also be possibly applied to primary alcs. M. Hudlický

ROCEK, J.

"M. Volf and M. Beran's Laboratorni sklo. Jeho konstrukce, kalibrace, funkce a uziti (Laboratory Glass: Its Design, Calibration, Function, and Use); a book review"

Chemicke Listy. Praha, Czechoslovakia. Vol. 53, no. 1, Jan 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclass

ROCEK, J., inz., Sc.C.

Practical use of model measurements of fast-lifting safety-valves.
Strojirenstvi 12 no.1:49-55 Ja '62.

1. Vyzkumne stredisko armatur, Modrany.

MARES, F.; ROCEK, J.

Oxidation with chromium (VI) oxide. Part 12: Oxidation of carboxylic acids; influence of an electro-negative substituent on the oxidation course. Coll Cz Chem 26 no.9:2389-2400 '61.

1. Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Prague.

(Oxidation) (Chromium oxide) (Acids)

MARES, F.; ROCEK, J.; SICHER, J.

The chromic acid oxidation of cycloparaffins; correlation between reactivity and thermochemical strain, and notes on reaction mechanism. Coll Cz Chem 26 no.9:2355-2369 '61.

1. Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Prague.

(Chromic acid) (Cycloalkanes)

ROCEK, J.---

Equilibria and reaction rates in the system tertiary alcohol-
tertiary alkyl ester-olefin. Coll Cz Chem 25 no.7:1751-1761
Jl '60. (EEAI 10:9)

1. Department of Organic Synthesis, Institute of Chemistry, Czecho-
slovak Academy of Science, Prague.

(Phase rule and equilibrium) (Alcohols) (Alkyl groups)
(Esters) (Olefins)

21.1000

28449
Z/038/61/000/010/001/008
D291/D301

AUTHORS: Čermák, Jiří, and Roček, Jindřich

TITLE: Activities of the Theoretical Physics Department of
the Nuclear Research Institute during 1954 - 1961

PERIODICAL: Jaderná energie, no. 10, 1961, 326-329

TEXT: The article briefly reviews the 1954-61 activities of the Theoretical Physics Department of the Nuclear Research Institute and lists research conducted in the field of reactor physics, to solve problems arising from the project of the first Czechoslovak nuclear research reactor. A list of publications, cited in this article, is given at the end. One of the major research items was neutron diffusion in the heterogeneous medium (Ref. 2: L. Trlifaj: Homogenizace heterogenního prostředí, Čs. čas. Fys. 6 (1956), p. 509); (Ref. 4: L. Trlifaj: On the anisotropy of a heterogeneous medium with respect to the diffusion of neutrons I, II, Czechosl. Journ. Phys. 7 (1957), pp. 397 and 593). An example is mentioned where the lattice of a heterogeneous reactor is

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Activities of the Theoretical ...

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Z/038/61/000/010/001/008
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homogenized by replacing the fuel rods and the moderator by an effective homogeneous medium. Neutron diffusion was studied in an infinite flat lattice with the aid of the kinetic theory of diffusion and compared with results achieved by the phenomenologic and other methods. The method of spherical harmonics was applied to solve concrete physical problems, e.g. calculation of the thermal neutron flux in the fuel element, and of the thermal utilization factor, etc. (Ref. 10: L. Trlifaj: Some aspects of the spherical harmonics method for neutron-transport problems in cylindrical geometry. Czechosl. Journ. Phys. 8 (1958), p. 390). Corrections of some erroneous assumptions, published in foreign papers on the equivalence method of spherical harmonics and the Wick-Chandrasekhar method of discrete coordinates, are made by L. Trlifaj (Ref. 11: O vztahu mezi sférických harmonických a metodu diskretních souřadnic. Czech. Journ. Phys. 9 (1959), p. 535). Irregularities in the heterogeneous lattice were another research subject and studies concentrated on boundary problems, i.e. determination of conditions on the boundary between the

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Activities of the Theoretical ...

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scattering medium and the vacuum (Milne's problem) or on the boundary of an infinitely large cylindrical black rod situated in an infinite medium, and the coherent determination of the extrapolated length or effective radius of the rod. The problem of the exchange of one block in a two-dimensional square lattice by another block with different physical properties was successfully solved by L. Trlifaj and J. Roček (Ref. 12: Zamena bloka v dvumernoy kvadratnoy reshotke. Atomnaya energiya 9 (1960), p.366). A formula was derived for the effective radius of a black rod and it was found that, at greater distances from the exchanged block, formulas for the deformation of the neutron density take on the same form as those for a homogeneous medium. Other studies dealt with the influence of regulation rods in a homogeneous reactor. Methods were investigated which not only allow determination of the efficiency of a regulation rod depending on the depth of insertion, but also the deformation of the neutron density in the vicinity of the rod. The multigroup theory was used for calculating reactor parameters; however, simple criteria were sought to replace the physically improper sets of constants. These cri-

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Activities of the Theoretical ...

teria were found in the form of estimations of certain determinants compiled from the constants. The correctness of the convergence of the so-called "method of iteration of sources", not yet fully confirmed, could be verified. The homogeneous reactor calculations were made for light or heavy-water moderation with the fuel (U-235 or Pu-238) suspended in form of the oxide. Tables were established, containing the results of critical-parameter calculations. The uranium-plutonium cycle was calculated and the changes in the isotopic composition of the fuel during reactor operation, and the influence of these changes on the reactivity of the system were stated. It was found that Pu-239, produced in the reactor from slightly enriched uranium, could be used to enrich the natural uranium for the next reactor run. The burn-up of a reactor could thus be reduced from 10,000 to 2,000 Mwd/t. Finally, the Nuclear Research Institute also engaged in studies of theoretical nuclear physics, especially the theory of elementary particles, nuclear models, beta-decay, etc. (Ref. 26: I. Ulehla: Meson scattering on nucleons. Czech. Journ. Phys. 10 (1960), p. 701; L. Gomolčák, Z. Pluhař, I. Ulehla: Optický model

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Activities of the Theoretical ...

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D291/D301

atomového jádra. Práce ÚJV, no. 442 (1960)); (Ref. 29: F. Janouch: Internal bremsstrahlung in $\beta^- \rightarrow \beta^+$ beta transitions. Nucl. Phys. 25 (1961), p.328. Report delivered at the 1961 Conference on Nuclear Spectroscopy in Riga); Ref. 31: I. Stoll: Stabilita periodických procesu v plasmatu. Čs. čas. fys., printing). There are 31 references: 28 Soviet-bloc and 3 non-Soviet-Bloc. The references to the English-Language publications read as follows: I. Marek: On iterations of linear bounded operators and Kellog's iterations in not selfadjoint eigenvalue problems. Comm. Math. Univ. Carol. I (4) 1960; F. Janouch: Internal bremsstrahlung in $\beta^- \rightarrow \beta^+$ beta transitions. Nucl. Phys. 25 (1961), p.328.

ASSOCIATION: Ústav jaderného výzumu ČSAV (Nuclear Research Institute, Czechoslovak AS)

Card 5/5

TRILIFAY, L.; ROCEK, Y. [Rocek, J.]

Replacement of a block in a two-dimensional rectangular array.
Atom.energ. 9 no.5:366-374 N '60. (MIRA 13:11)

1. Institut yadernykh issledovaniy Chekholsovatskoy AN, Praga.
(Nuclear reactors)

ROCEK, J.

Oxidations with chromium (VI) oxide. IX. Application of Taft's equation to the oxidation of primary alcohols. Coll Cz Chem 25 no.4:1052-1057 Ap '60. (EEAI 9:12)

1. Department of Organic Synthesis, Institute of Chemistry,
Czechoslovak Academy of Science, Prague.
(Oxidation) (Chromium oxides) (Alcohols)

ROCK, J

V Oxidations with chromium(VI) oxide. VIII. Oxidation of straight-chain paraffins: an example of linear dependence of reaction rate on the number of reactive groups. J. Roček and F. Mareš (Českoslov. akad. věd, Prague). *Collection Czechoslov. Chem. Commun.* 24, 2741-7 (1959) (in English); cf. *C.A.* 53, 5117h. — The rate of oxidn. of a homologous series of paraffins is directly proportional to the no. of CH_2 groups. The rate of any member can be calcd. from the expression $k_n = (n - 2) \times k_{\text{CH}_2}$, where n is the no. of C atoms and k_{CH_2} the rate const. for the oxidn. of a single CH_2 group. The rate of oxidn. of Me groups is at least by an order lower than that of CH_2 groups. The values of k_{CH_2} calcd. from the results for each individual hydrocarbon from the above equation are on the av. 5.73×10^{-3} at 50° for $0.2M$ H_2SO_4 in 99% AcOH . Relationships between the reactivity of a group and its position on a linear chain and the character of the reaction are discussed. The authors suggest that the rate-detg. process is the removal of a H from the hydrocarbon as hydride ion with the formation of an alkyl cation.
Lach-Brháněk

3

2 g. (13)

CFK
VI

1957, 4.

"Oxidation with chromic (VI) oxide. II. quantitative study of the acid-catalyzed oxidation of tetrahydropyran. In German." "V. Ixudatuib if cickigexabe abd 4-septene. In English."

p. 1509 (Collection of Czechoslovak Chemical Communications. Vol. 22, no. 5, Oct. 1957, Praha, Czechoslovakia.)

Monthly Index of East European Accessions (LMI) LC, Vol. 7, no. 7, July 1956

ROCEK, J.

"Pressure losses in fittings." p. 163.

STROJIRENSTVI. (Ministerstvo tezkého strojírenství, Ministerstvo
presného strojírenství a Ministerstvo automobilového průmyslu a
zemědělských strojů). Praha, Czechoslovakia, Vol. 9, No. 3, Mar. 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 6, No. 8,
August 1959.
Uncla.

CZECHOSLOVAKIA/Nuclear Physics - Nuclear Technology and Power.

C

Abs Jour : Ref Zhur Fizika, No 12, 1959, 26975
 Author : Rocek, Jindrich; Bartosek, Vaclav
 Inst : Institute of Nuclear Physics, Czechoslovak Academy of Sciences
 Title : Physical Data for the Design of Homogeneous Reactor with Light and Heavy Water
 Orig Pub : Jaderna energie, 1958, 4, No 12, 365-371
 Abstract : In connection with the project of a homogeneous ten-megawatt reactor, a theoretical investigation was made of the dependence of the critical parameters of the active zone on the composition of the fuel suspension, and also of the long-term changes in the composition of suspension during the reactor operation.
 -- P.P. Sosenko

Card 1/1

- 33 -

ROCEK, JAN

APPROVED FOR RELEASE: Tuesday, August 01, 2000

CIA-RDP86-00513R001444

G-1

CZECHOSLOVAKIA/Organic Chemistry
 Questions on Organic Chemistry.

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 14326.
 Author : Rocek Jan
 Inst :
 Title : Oxidation with Chromium Trioxide. V. Oxidation of Cyclohexane and n-Heptane.
 Orig Pub: Chem. listy, 1957, 51, No 3, 459-462; Sb. chekhosl. khim. rabot, 1957, 22, No 5, 1519-1523.

Abstract: Consideration of data secured in previous research (see Communication IV, RZhKhim, 1957, 47418) on oxidation of methylcyclohexane (I) with CrO_3 , shows that they are of a more general significance and are not dependent upon the presence of either a tertiary C, or a CH_3 group, since the oxidation of cyclohexane and of n-heptane, although it takes place many times more slowly than the oxidation of I, reveals essentially

Card : 1/2

CZECHOSLOVAKIA / Organic Chemistry. General and
Theoretical Topics of Organic Chemistry.

G

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 60852.

Abstract: of the first order with reference to I and II, and of the zero order with reference to CrO_3 (the CrO_3 concentration drops linearly with the time, if I and II were in excess, and the magnitude of the constant k_0 is constant at the varying CrO_3 concentration). The oxidation rate (OR) of I is a linear function of the medium acidity H_0 (RZhKhim, 1957, 14865). The dependence of $\log k$ on H_0 was determined for H_2SO_4 in 90%-ual CH_3COOH , for H_2SO_4 in 100%-ual CH_3COOH and for NClO_4 in 90%-ual CH_3COOH . The angle factor of the straight line equals to 1.1, which agrees well with the theoretical value (1.0). After an addition of water,

Card 2/4

Racek, J.

7 27 5
 ✓ Oxidation of secondary alcohols by chromium(VI) oxide.
 J. Racek and J. Krupicka (Czech Acad. Sci., Prague).
~~Chem. & Ind. (London)~~ 1957, 1088-9. A new mechanism
 for the oxidation of secondary alcs. by Cr(VI) oxide has been
 proposed which involves the direct transfer as hydride anion
 of an H atom from the alc. to the oxidizing agent (H_2CrO_4).
 This has been supported experimentally by measuring the
 rate of oxidation of iso-PrOH over a range of acidities from
 6-55% aq. H_2SO_4 . The plot of the logarithms of the rate
 constants vs. the acidity function H_0 showed a linear re-
 lationship in accordance with the proposed mechanism.

M. H. Ramadan

Jeff J.

ROČEK, J.

The acidity of certain mineral acids in acetic acid. The
acidity function. J. Roček. Collection Czechoslov. Chem.
Commun. 22, 1-13 (1957) (in English). — See C.A. 50,
10489f. B. J. C.

cm

11

ROCEK, J. - Strojirenstvi - Vol. 5, no. 4, Apr. 1955.

Safety valves. p. 243.

SO: Monthly list of East European Accessions. (REAL), LC, Vol. 4, No. 9, Sept. 1955
Uncl.

ROCEK, J.; SORM, F.

Oxidation with chromium (VI) oxide. I Oxidation with chromium (VI) oxide as an acid-catalyzed reaction. p. 306.
CHEMICKE LISTY Vol. 49, No. 3, Mar. 1955

SO: Monthly East European Accession (EEAL), LC, Vol. 9, Sept. 1955 Uncl.

ROCEK, J.

Oxidation with chromium (VI) oxide. II. Solubility of chromium (VI) OXIDE IN ACETIC
ACID. P. 369
CHEMICKE LISTY Vol. 49, No. 3, Mar. 1955

SO: Monthly East European Accession (EEAL), LC, Vol. 9, Sept. 1955 Uncl.

STANEK, Miroslav, inz.; TEYSSLER, Jiri, inz., dr.; FISCHER, Jiri, inz.;
SPITALNIK, inz.; STEKL, inz.; NAVRATIL, Miroslav, inz., dr.;
IBLER, Jaroslav, inz., dr.; KARAS, Frantisek, prof., inz., dr., ScDr.;
GESKA, inz.; HOFFMANN, V., inz.; CHALUPSKY, Josef, inz.;
FAPSO, O., inz.; ROCEK, Jaroslav, inz., ScC.; SVEJDA, J., inz.;
LENCZ, Imrich, inz.; RAJDA, Frantisek; BALOS, Jaroslav, inz.;
MACHA, Jiri, inz.

Third National Conference on the Results of Research and
Development of Power Installations. Energetika Cz:Suppl.:
Energetika 13 no.6:1-24 '63.

KORDIK, Evzen; DUNDR, Vladimir; FORST, Zdenek; KLOFEC, Miroslav; MICEK, Frantisek; ROCEK, Otto

Physical and chemical principles of the production of carbonate type combined fertilizer. Chem prum 12 no.12:641-645 D '62.

1. Vyzkumny ustav anorganicke chemie, Usti nad Labem.

ROCEK, Vladimir

Maintenance and handling of tools in automatized production. Stroj vyr
10 no.12:596-598 '62.

1. Automobilove zavody, n.p., Mlada Boleslav.

SERY, Z.; SERA, D.; FAJTA, M.; HOLUSA, R.; KAMENICEK, O.; ROCEK, V.;
TALAS, M.

Breast dysplasia. Rozhl. chir. 43 no.5:273-277 My '64.

Clinical picture of breast dysplasia. Ibid.:283-287

Vaginal cytology and endometrial histology in breast
dysplasia. Ibid.:293-296

1. II. chirurgická klinika (prednosta: doc. dr. J. Burian);
ústřední rentgenologický ústav (prednosta: doc. dr. J.
Doubravský, CSc.), patologickoanatomický ústav (prednosta:
doc. dr. V. Valach), a gynekologická klinika (prednosta: doc.
dr. F. Gazarek, CSc.) lékařské fakulty PU (Palackého university)
v Olomouci.

ROCEK, V.

"Electromagnetic vibration equipment." p. 131

RUDY. Praha, Czechoslovakia, Vol. 7, No. 4, April, 1959

Monthly List of East European Accessions (EMAI), LC, Vol. 8, No. 9, September, 1959
Uncl.

JANOUSEK, M.; ROCEK, V.; HOLUSA, R.

Pulmonary aspergilloma in the course of agranulocytosis complicated by candidiasis. *Cesk. rentgen.* 17 no.1:10-15 Ja '63.

1. I. interni klinika lekarske fakulty PU v Olomouci, prednosta prof. dr. P. Lukl Rentgenologicky ustav lekarske fakulty PU v Olomouci, prednosta doc. dr. J. Doubravsky, CSc. Patologickoanatomicky ustav lekarske fakulty PU v Olomouci, prednosta doc. dr. V. Valach.

(ASPERGILLOSIS) (LUNG DISEASES, FUNGAL)
(AGRANULOCYTOSIS) (MONILIASIS)

ROCEK, V.

"Jigs and equipment for reducing accident times in production"
by B. Chvala, A.Rezac. Reviewed by V. Rocek. Strojirenstvi 14
no.6:476-477 Je '64.

ROCEK, V.

Multisteel cutting on a lathe. p. 468.

STROJIRENSKA VYROBA, Prague, Vol. 3, no. 11, Nov. 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 6,
June 1956, Uncl.

ROCEK, V. [Rocek, V.] (Chekhoslovatskaya Sotriialisticheskaya Respublika)

Cone countersinks with a single cutting edge. Stan.1 instr. 31
no.9:36 S '60. (MIRA 13:9)

(Metal-cutting tools)

KOCEK, V.; FAJTA, F.; DOUBRAVSKY, J.; SERA, D.; SERY, Z.; HOLUSA, R.; KALENICEK, O.;
TALAS, M.

Contribution of simple mammography in the differential diagnosis
of dysplasia of the female breast. Rozhl. chir. 43 no.5:288-292
My'64.

I. Ustredni rentgenologicky ustav (prednosta: doc. dr. J.
Doubravsky, CSc.); II. chirurgicka klinika (prednosta: doc.
dr. J. Burian); patologickoanatomicky ustav (prednosta: doc.
dr. V. Valach) a gynekologicka klinika (prednosta: doc. dr.
F. Gazarek, CSc.) lekarske fakulty PU (Palackeho university)
v Olomouci.

HOLUSA, R.; VALACH, V.; SERY, Z.; SERA, D.; FAJTA, M.; KAMENICEK, O.; ROCEK, V.;
TALAS, M.

Pathology of breast dysplasia. Rozhl. chir. 43 no.5:276-282
My'64.

- I. Patologickoanatomicky ustav (prednosta: doc. dr. V. Valach);
- II. chirurgicka klinika (prednosta: doc. dr. J. Burian); ustredni
rentgenologicky ustav (prednosta: doc. dr. J. Doubravsky, CSc.)
a gynekologicka klinika (prednosta: doc. dr. F. Gazarek, CSc.)
lekarske fakulty PU [Palackeho university] v Olomouci.

ROCEK, V.

Combined metalworking, p. 241, STROJIRENSKA VYROBA (Ministerstvo
strojirenstvi) Praha, Vol. 3, No. 6, June 1955

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 4, No. 12, December 1955

A. B. V.

1. Also with: pressed-in teeth; also, remarks by A. Benas, p. 210.
2. JINENI V. (Ministerstvo strojirenstvi) Praha. Vol. 4, no.
6, June 1956.

SOURCE: East European Accessions List, Vol. 5, no. 9, September 1956

Rocek, V.

Rocek, V. We are still wasting material. p. 37.

Vol. 5, no. 1, Jan. 1957
STROJIRNSKA VYROBA
TECHNOLOGY
Czechoslovakia

So. East European Accessions, Vol. 6, May 1957
No. 5

FAJTA, F.; ROCEK, V.

Volvulus of the cecum. Cesk. radiol. 18 no.6:402-406 N '64.

1. Rentgenologicky ustav lekarske fakulty Palackeho University
v Olomouci, (prednosta doc. dr. J. Doubravsky, ScC.).

ROCEK, V.

"Innovators' Method in Grinding Taps", P. 4, (TECHNICKE NOVINY, Vol. 1,
No. 17/18, Dec. 1953, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12,
Dec. 1954, Uncl.

ROCEK, V.

"Skoda 1200 In An Improved Model", P. 592, (SVET MOTORU, Vol. 8, No. 19,
Sept. 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12,
Dec. 1954, Uncl.

ROCEK, Vladimir

Combined hole- boring tools for automatic machining. Stroj vyr 12
no.11:786-790 '64.

Seventy years of the Automobilove zavody National Enterprise in
Mlada Boleslav. Ibid.:813

1. Automobilove zavody National Enterprise, Mlada Boleslav.

ROCEK, Vladimir

Chamfering of tapped hole edges. Stroj vyr 11 no.10:512-513 0
'63.

1. Automobilove zavody, n.p., Mlada Boleslav.

ROCK, Vladimir

Single-cut edge for finishing ground. Stroj vyr 13
no.1:31 Ja '66.

"Jigs and equipment for use in secondary periods in pro-
duction" by R. Chvala, J. S. no. 1:3. Rev. ed by Vladimir
Rock. Ib d.:70

1. Automobile: zavody National Enterprise, Mlada Boleslav.

ROCK, V.; KRC, C.; FAJTA, F.

Hyperplasia of the thymus in spontaneous pneumomediastinum. Cesk.
rentgen. 17 no.1:27-29 Ja '63.

1. Rentgenologicky ustav lekarske fakulty PU v Olomouci, prednosta
doc. dr. J. Doubravsky, CSc.
(THYMUS HYPERPLASIA) (MEDIASTINAL EMPHYSEMA)

ECOLE, V.

"Meeting of Chief Technologists", P. 10, (TECHNISCHE NOVINY, Vol. 2,
No. 10, Apr. 1974, Praha, Czechoslovakia)

EC: Monthly List of East European Acquisitions, (EFAL), LC, Vol. 4,
No. 1, Jan. 1974, Incl.

ROCEK, Vlastimil; KRC, Cyril

Pulmonary thromboembolism. Cesk.rentg.15 no.2:73-78 Ap '61.

1. Rentgenologicky ustav fakultni nemocnice PU v Olomouci
Prednosta prim. MUDr. Jaroslav Doubravsky.
(PULMONARY EMBOLISM)

FAJTA, Frantisek; ROCEK, Vlastimil

Jejunogastric invagination. Cesk. rentg. 15 no.6:396-400 '61.

1. Rentgenologicky ustav fakultni nemocnice PU, Olomouc, prednosta
MUDr. J. Doubravsky. (INTUSSUSCEPTION)

ROCEK, V.

"Fixtures and equipment for reducing production time" by B.
Chvala, A. Rezac. Reviewed by V. Rocek. Strojirenstvi 14, no.12:
966 D '64.

SIROTANOVIC, Ksenija; ROCEN-BAJLON, Milka

Synthesis of the S-acetyl- and S-phenyl- α -acetylamino-thiolactic acid. (α -acetyl-(phenyl)-thio-propionic acid). Glas Hem dr 25/26 no.1/2:103-108 '61.

1. Faculty of Science, Institute of Chemistry, Beograd.

(Acetyl group) (Phenyl compounds) (Propionic acids)

L 31062-66 EWP(c)/EWP(k)/I/EWP(l)/EWP(f)/EWP(v)

ACC NR: AP6022559

SOURCE CODE: CZ/0031/65/013/012/0859/0863

AUTHOR: Rocek, Vladimir

ORG: AZNP, Mlada Boleslav

TITLE: Development of production line tools for the machining of the cylinder heads of motor vehicle engines

SOURCE: Strojirenska vyroba, v. 13, no. 12, 1965, 859-863

TOPIC TAGS: vehicle engine, engine component, metalworking machinery, metal machining, industrial automation

ABSTRACT: The article discusses the complications which arise in the automatic production of the cylinder heads of motor vehicle engines and the more rigorous requirements which must be met in the designing of production line tools to make them. Examples of such designs are presented and recommendations are made. Orig. art. has: 9 figures. [JPRS]

SUB CODE: 13, 21 / SUBM DATE: none

Card 1/1 *1e*

UDC: 621.002.5:338.2: 621.9.02

MIHAI, F.; ROCH, B.

The calcium and strontium compounds of dilituric acid. Studii chim
Timisoara 7 no.3/4:303-311 J1-D '60. (EEAI 10:9/10)

(Calcium) (Strontium) (Dilituric acid)

KOCH, M., MUDr.

10 Years of the polyclinic in Jihlava. Cesk. zdrav. 13 no.6:
310-312 Je 65.

1. Obvodního ústavu národního zdraví, Jihlava.

ROCH, M.

In memory of Doctor Bohumil Vesely. Lek.listy 5 no.22:684 15 Nov 50.
(CLML 20:5)

ROCH, M.

ROCH, M.

In memory of Bohumil Vesely. Cas. lek. cesk. 89 no.46:1305-
1306 17 Nov 50. (CJML 20:4)

KOCH, M., MUDr.

Twenty years of public health service in the Jihlava area.
Cesk. zdrav. 13 no.11:573-576 N '65.

1. Obvodni ustav narodniho zdravi Jihlava.

ROCH, M., MUDr.

On a contribution to the subject "organization of health care"
in intermediate health schools. Cesk. zdrav. 10 no.4:198-200
'62.

1. Reditel OUNZ v Jihlavy.
(HEALTH EDUCATION)

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCESSES AND PROPERTIES INDEX																																																			
BC d-4 Osmotic resistance of blood corpuscles during typhoid fever. F. SCHLOTHOPE and R. BOON (Rev. med. Suisse rom., 1938, 3, 234-245); 4 brothers and sisters (13-18 years old) with typhoid showed a diminution in blood corpuscle resistance between the 2nd and 7th weeks of illness accompanied by urobilinuria and urobilinogenuria. Coagulation time coincidentally increased. Sedimentation rate rose in the 3rd week. A. J. B.																																																			
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1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
COMMON ELEMENTS																																																			
COMMON VARIABLES INDEX																																																			

ROCHACZ, K.

Water shortages; damages caused by mining and their prevention. p. 199

GAZ, WODA I TECHNIKA SANITARNA (Stowarzyszenie Naukowo-Techniczne Inzynierow i Technikow Sanitarnych, Ogrzewnictwa i Gazownictwa) Warszawa, Poland.
Vol. 33, no. 5, May 1959

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 9, September 1959
Uncl.

RCO-107, 1.

Water supply and canalization system, water reservoirs and water pumping stations on mining areas. p. 284

SO: East European Accessions List (EAL). LC. No. E N. 11 N. v. 1955 uncl.

ROCHACZ, K.

(GAZ, WODA I TECHNIKA SANITARNA, Vol. 27, No. 8, Aug. 1953, Warsaw, Poland)

"Water pipes in mountains." p. 226

SO: MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, L.C., Vol. 3, No. 4, APRIL 1954

L 6988-66

SOURCE CODE: UR/0188/65/000/004/0078/0082

ACC NR: AP5020243

AUTHOR: Rocharov, V. G.; Levshin, L. V.

ORG: Department of Optics (Kafedra optiki)

TITLE: The influence of molecular interaction on optical properties of the Rhodamine 6-G molecule in binary solutions

SOURCE: Moscow. Universitet. Vestnik. Seriya 3. Fizika, astronomiya, no. 4, 1965, 78-82

TOPIC TAGS: molecular interaction, dye chemical, organic solvent, alcohol, carbon-tetrachloride, band spectrum, solution concentration

ABSTRACT: In concentrated solution many organic substances, especially dyes, associate with molecules of the solvent. This is usually accompanied by a change in the absorption spectra and it initiates a diminishing of the luminescence of the dye. The latter depends on the nature of the solution used. To study the intermolecular interaction effects on Rhodamine 6-G (a brilliant yellowish red basic dye used in coloring paper) measurements were carried out with both polarized and unpolarized

Card 1/2

UDC: 535.34

L 6988-66

ACC NR: AP5020243

binary solutions. Solvents were the n- and iso- alcohols from methyl to amyl with carbontetrachloride making up the unpolarized solution, and methyl, ethyl, and isopropyl alcohol in aqueous solution comprising the polarized one. A table is given showing spectra absorption changes with various compositions. The change with methyl alcohol in carbontetrachloride as the solvent proved negligibly small. Graphs are also given contrasting the band absorption of the monomer with its corresponding associatives. The strong changes in the fundamental band are caused by intermolecular association of the monomer. It is concluded that the significant changes in spectra absorption with concentration is due primarily to the change of band absorption of the monomer. This in its turn extinguishes the luminescence in this medium. Orig. art. has: 1 chart and 2 figures.

SUB CODE: OP,GC/ SUBM DATE: 24May64/ ORIG REF: 004/ OTH REF: 000

Card 2/2 *nd*

ROCHAROV, Yu., arkhitektor

Inside housing developments. Za bezop.dvizh. no.1:6-7 Ja '60.
(MIRA 13:5)

(City traffic)

Rochas, PAUL

✓ Problems in the colorimetric analysis of fabrics treated
with optical bleaching agents. J. Plate and Paul Rochas.
Melliand Textilber. 36, 362-7(1955).—A modified photo-
colorimeter is diagrammed. Optical measurements are
made of reflected plus fluorescent light, reflected light only,
and fluorescent light only. Spectral curves obtained in the
analysis of various materials are shown. M. Dolinsky



ROCKENBAUER, Pal

Kossuth-prize winner biologists in the Kossuth Club.
Elovilag 6 no.1:61-62 Ja-F '61.

1. Budapesti Biológiai Szakosztály titkara.

Application of the method of selective solution, by means of various organic solvents, to the direct analysis of lubricating oils. Concentration of the sulfur compounds contained in a Rumanian oil called "RRO". Emile Andre and Jean Roche. *Revue de chimie*, 50, 5, 1218-27, 1958.

The direct analysis of a Rumanian mineral oil called "RRO" was undertaken in an attempt to ext. the active hydrocarbons responsible for rotating the plane of polarized light $2-20^\circ$ to the right. By extn. with Me₂CO, EtOH and MeOH it was possible to conc. a mixture of compounds of relatively low mol. wt. but highly active. The compounds were identified as being a mixture of tertiary and secondary amines. The composition of the active compounds was not studied. Formula I: A random

Proximate analysis of some mineral lubricating oils.
Solvent concentration of the sulfur compounds in a Ru-
manian oil. Emile André and Jean Bixler. *Comptes rendus
des travaux de la Commission des combustibles liquides* 13, 349-51 (1958), cf. C. 57, 1. 32, 1447.
94.57%. — Extn. of 31. Rumanian oil, d₄²⁰ 0.931, with acetone
and extn. of this ext. with EtOH yields a most-sol. fraction
of 84 g., d. 1.020. — Extn. of this with MeOH yields a most-
sol. fraction of 9 g., d. 1.050, mol. wt. 296, contg. 3.9% O
and 1.5% S, and least-sol. hydrocarbon fractions of d
1.000-0.974, mol. wt. 296. The *dehn.* of S is improved by
decompos. of the Eschka mixt. in a nest of 3 crucibles of
which the middle one is inverted. H. A. Beatty

ASA SLA METALLURGICAL LITERATURE CLASSIFICATION

85559

S/089/60/009/005/002/020
B006/B070

21.1200
AUTHORS:

Trlifay, L., Recte, J. Rochek, Y.

TITLE:

Replacement of a Block in a Two-dimensional Quadratic Lattice

PERIODICAL: Atomnaya energiya, 1960, Vol. 9, No. 5, pp. 366 - 374

TEXT: A method was elaborated by A. D. Galanin, S. M. Feynberg and others for the calculation of the critical and boundary conditions in heterogeneous thermal reactors. A number of problems have been treated by this method, including the one considered here, namely, the replacement of a block in a lumped lattice by one with other properties. For example, this problem has already been solved for a three-dimensional array of point blocks (Ref.3), and an infinite cylindrical reactor with a quadratic lattice (Ref.4). In the present paper, a two-dimensional infinite quadratic lattice is considered, which is made up of infinitely long filament-like blocks. Just like Galanin (Ref.1), the present authors assume that the finite nature of the transverse dimensions can be taken into account by introducing effective constants. It is further

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Replacement of a Block in a Two-dimensional Quadratic Lattice S/089/60/009/005/002/020
B006/B070

assumed that the slowing down and diffusion of thermal neutrons can be satisfactorily described in diffusion-age approximation, and that the absorption of resonance neutrons in the blocks is negligible. For the determination of neutron density distribution in this approximation, it suffices to know the thermal neutron distribution in the lattice on the surface of the block. At first, the forms of the general solutions of the density distribution functions are given for the case of an active, a critical, and an inactive medium. Subsequently, it is shown how the method of Feynberg must be modified for a two-dimensional inactive medium. A cylindrical neutron-absorbing block located in an infinite, homogeneous, and inactive medium is considered. The solution obtained for this case is analogous to that found by Galanin (Ref.1). This method is not applicable to an active medium; for this, a method (Ref.2) taken from quantum field theory is modified. Finally, the case of an infinite critical lattice is considered as a limiting case of the two above cases. The authors proceed from a formulation for the thermal neutron density in a homogeneous medium in diffusion approximation. It is found that before the formulas derived can be of practical use, long numerical calculations are necessary. A. D. Galanin is thanked for discussions.

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Replacement of a Block in a Two-dimensional
Quadratic Lattice S/C89/60/009/005/002/020
B006/B070

There are 1 figure and 5 references: 2 Soviet, 2 US, and 1 Swiss.

ASSOCIATION: Institut yadernykh issledovaniy ChSAN, Praga (Institute
of Nuclear Research of ChSAN, Prague)

SUBMITTED: January 28, 1960

Card 3/3

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 BIRYUKOV, S.M.; BLOKHIN, S.I.; BOROVVOY, G.A.; BULEV, M.Z.; BURAKOV,
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 GORBACHEV, V.N.; GRZHIB, B.V.; GHEKULOV, L.P., kand. z.-kh. nauk;
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 KARANOV, I.F.; KNYAZEV, S.N.; KOLEGAYEV, N.M.; KOMAREVSKIY, V.T.;
 KOSENKO, V.P.; KORENISTOV, D.V.; KOSTROV, I.N.; KOTLYARSKIY, D.M.;
 KRIVSKIY, M.N.; KUZNETSOV, A.Ya.; LAGAR'KOV, N.I.; LGALOV, V.G.;
 LIKHACHEV, V.P.; LOGUNOV, P.I.; MATSKEVICH, K.F.; MEL'NICHENKO,
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 ROZANOV, M.P., kand. biol. nauk; ROZHEGOV, A.G.; RUBINCHIK, A.M.;
 RYBCHENSKIY, V.S.; SADCHIKOV, A.T.; SEMENTSOV, V.A.; SIDENKO, P.M.;
 SINYAVSKAYA, V.T.; SITAROVA, M.N.; SOSNOVIKOV, K.S.; STAVITSKIY,
 Ye.A.; STOLYAROV, B.P. [deceased]; SUDZILOVSKIY, A.O.; SYRTSOVA,
 Ye.D., kand. tekhn. nauk; FILIPPSKIY, V.P.; KHALTURIN, A.D.;
 TSISHCHENSKIY, P.M.; CHERKASOV, M.I.; CHERNYSHEV, A.A.; CHUSOVITIN,
 N.A.; SHESTOPAL, A.O.; SHEKHTER, P.A.; SHISHKO, G.A.; SHCHERBINA,
 I.N.; ENGEL', F.F.; YAKOBSON, A.G.; YAKUBOV, P.A., ARKHANGEL'SKIY,
 (Continued on next card)

ANDON'YEV, V.L.... (continued) Card 2.

Ye.A., retsenzent, red.; AKHUTIN, A.N., retsenzent, red.; BALASHOV, Yu.S., retsenzent, red.; BARABANOV, V.A., retsenzent, red.; BATUNER, P.D., retsenzent, red.; BORODIN, P.V., kand. tekhn. nauk, retsenzent, red.; VALUTSKIY, I.I., kand. tekhn. nauk, retsenzent, red.; GRIGOR'YEV, V.M., kand. tekhn. nauk, retsenzent, red.; GUBIN, M.F., retsenzent, red.; GUDAYEV, I.N., retsenzent, red.; YERMOLOV, A.I., kand. tekhn. nauk, retsenzent, red.; KARAULOV, B.F., retsenzent, red.; KRITSKIY, S.N., doktor tekhn. nauk, retsenzent, red.; LIKIN, V.V., retsenzent, red.; LUKIN, V.F., retsenzent, red.; LUSKIN, Z.D., retsenzent, red.; MATRIROSOV, A.Kh., retsenzent, red.; MENDELEYEV, D.M., retsenzent, red.; MENKEL', M.F., doktor tekhn. nauk, retsenzent, red.; OBHIZKOV, S.S., retsenzent, red.; PETRASHEN', P.N., retsenzent, red.; POLYAKOV, L.M., retsenzent, red.; RUMYANTSEV, A.M., retsenzent, red.; RYABCHIKOV, Ye.I., retsenzent, red.; STASENKOV, N.G., retsenzent, red.; TAKANAYEV, P.F., retsenzent, red.; TARANOVSKIY, S.V., prof., doktor tekhn. nauk, retsenzent, red.; TIZDEL', R.R., retsenzent, red.; FEDOROV, Ye.M., retsenzent, red.; SHEVYAKOV, M.N., retsenzent, red.; SHMAKOV, M.I., retsenzent, red.; ZHUK, S.Ya. [deceased], akademik, glavnyy red.; RUSSO, G.A., kand. tekhn. nauk, red.; FILIMONOV, N.A., red.; VOLKOV, L.N., red.; GRISHIN, M.M., red.; ZHURIN, V.D., prof., doktor tekhn. nauk, red.; KOSTROV, I.N., red.; LIKHACHEV, V.P., red.; MEDVEDEV, V.M., kand. tekhn. nauk, red.; MIKHAYLOV, A.V., kand. tekhn. nauk, red.; PETROV, G.D., red.; RAZIN, N.V., red.; SOBOLEV, V.P., red.; FERINGER, B.P., red.; FREYGOFER, (Continued on next card)

ANDON'YEV, V.I.... (continued) Card 3.

Ye.F., red.; TSYPLAKOV, V.D. [deceased], red.; KORABLINOV, P.N.,
tekhn. red.; GENKIN, Ye.M., tekhn. red.; KACHKROVSKIY, N.V., tekhn.
red.

[Volga-Don; technical account of the construction of the V.I. Lenin
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and irrigation systems] Volgo-Don; tekhnicheskii otchet o stroitel'-
stve Volgo-Donskogo sudokhodnogo kanala imeni V.I. Lenina, TSim-
lianskogo gidrouzla i orositel'nykh sooruzhenii, 1949-1952; v plati
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(Continued on next card)

ANDON'YEV, V.L.... (continued) Card 4.

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(MIRA 11:9)

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tekhnicheskogo otcheta o stroitel'stve Volgo-Dona. 2. Chlen-kor-
respondent Akademii nauk SSSR (for Akhutin). 3. Deystvitel'nyy
chlen Akademii stroitel'stva i arkhitektury SSSR (for Grishin,
Razin).

(Volga Don Canal--Hydraulic engineering)